

Original document

## Method for galvanically forming conductor structures of high-purity copper in the production of integrated circuits

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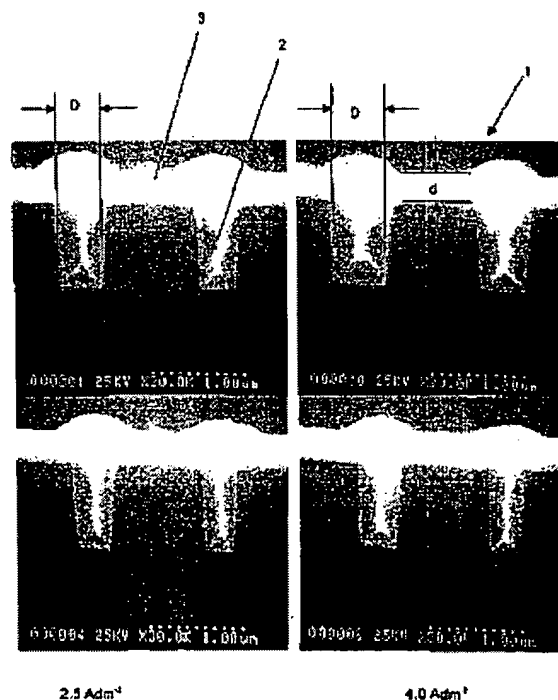
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Abstract not available for AU3143500

Abstract of corresponding document: **US6793795**

A method is disclosed for electrolytically forming conductor structures from highly pure copper on surfaces of semiconductor substrates, which surfaces are provided with recesses, when producing integrated circuits. The method includes the steps of coating the surfaces of the semiconductor substrates with a full-surface basic metal layer in order to achieve sufficient conductance for the electrolytic depositions, depositing full-surface deposition of copper layers of uniform layer thickness on the basic metal layer by an electrolytic metal deposition method, and structuring the copper layer. The electrolytic metal deposition method is accomplished by bringing the semiconductor substrates into contact with a copper deposition bath containing at least one copper ion source, at least one additive compound for controlling the physico-mechanical properties of the copper layers, and Fe (II) and/or Fe(III) compounds, and applying an electric voltage between the semiconductor substrates and dimensionally stable counter-electrodes.



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